



PAARA *graphs*

Celebrating 62 years as an *active* ham radio club—*Since 1937*
Newsletter for the Palo Alto Amateur Radio Association, Inc.



CALENDAR

- Sept 10, **PAARA Meeting**, 7:30,
Menlo Park Recreation Center
700 Alma Street, Menlo Park
- Sept 15, **PAARA Board Meeting**, 7:30
Red Cross Bld., 400 Mitchell Ln., Palo Alto
- Oct 1, **PAARA Meeting**, 7:30
- Oct 6, **PAARA Board Meeting**, 7:30
- Nov 5, **PAARA Meeting**, 7:30
- Nov 10, **PAARA Board Meeting**, 7:30

2 m **CODE PRACTICE**, 2000 to 2030 PST, Tues **W6APZ** 145.23 re-
peater



PROGRAM

September 10, 1999
7:30 P.M.

Speaker:

(Speaker and subject not known at press time)

—PAARA Radio NET every Monday evening at 8:30 P.M. local time—
on the 145.230 -600 MHz repeater, PL tone off

What is ARES?

The Amateur Radio Emergency Service (ARES) is a group of Federally licensed Amateur Radio (slang = "ham radio") operators who volunteer their skills to assist public safety agencies in the event of a disaster or other incident. During calamities such as earthquakes and hurricanes, the Amateur Radio Emergency Service has typically been among the first to respond, filling the communications void left by downed telephone lines and power outages - quickly linking and coordinating relief efforts. These activities are an integral part of the purpose of Amateur Radio as defined by the Federal Communications Commission (FCC § 97.1(a); § 97.401(a)).

Amateur Radio is very different from "C.B.": Amateur Radio operators must pass a Federal examination and be issued a Federal license, which grants them "operating privileges" - such as the right to use high power transmitters (over a thousand watts), different modes (such as voice, Morse code, and even television), and thousands of frequencies. Furthermore, those Amateur Radio operators who are members of ARES are trained in emergency communications (and related skills) and are Registered Disaster Service Workers (DSWs). Members of ARES have very diverse backgrounds - but share the common goal of assisting when called upon by their communities.

How Does the Amateur Radio Emergency Service Assist Local Agencies? In San Mateo County, the Amateur Radio Emergency Service is coordinated with the San Mateo County Sheriff's Office of Emergency Services (OES) and the South County Amateur Radio Emergency Service (SCARES). Statewide, Amateur Radio is integrated into the California Office of Emergency Services (CA OES) Auxiliary Communications Service (ACS) and the Standardized Emergency Management System (SEMS) (Cal. Code § 8607). In the event of a disaster, ARES Emergency Responders perform a number of tasks to assist local fire, law enforcement, and other public service agencies:

- Back-Up Emergency Communications: Most public service communications today are heavily reliant upon land-line telephone, cellular telephone, and fax systems to conduct routine operations. In disasters such as earthquakes (or even power-outages), these systems fail. Subsequently, police, fire, and other public service radio channels become rapidly saturated. ARES Emergency Responders are capable of providing such agencies with a complete back-up radio communications system with many additional channels. Furthermore, ARES is

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PAARA September meeting will be September 10th

due to Labor Day weekend

Miscellaneous Dates

Flea Market at Foothill (info at: <http://joslin.com/FleaMarket>)
 Sept 11 Santa Clara County Amateur Radio Assoc., (SCCARA)
 Oct 9 South Peninsula Emergency Communication System (SPECS)

PAARA Palo Alto Amateur Radio Association
 meets 1st Friday 7:30 each month, Net 145.230 each Monday 8:30,
 contact: Andreas Junge N6NU.....(650) 233 0843

EMARC Electronics Museum Amateur Radio Club
 meets 4th Friday 7:30 each month,
 contact: Sheldon Edelman 650-858-2176, Edelman@richochet.net

NCDXC Northern California DX Club
 meets 2nd Friday 7:30 each month, repeater for member info 147.360, Thur 8:00PM,
 contact: Bob Mammarella KB6FEC 408 729 1544.

NorCalQRP Northern California QRP Club
 meets 1st Sunday each month,
 contact: Jim Cates 3241 Eastwood Rd., Sacramento, CA 95821.

Perham Foundation,
 contact: Jerry Tucker WA6LNV 650-961-3266

SPECS Southern Peninsula Emergency Communication System
 meets each Monday 8:00PM on Net 145.27, 440.80 MHz, www.specsnet.org
 contact: Tom Cascone, KF6LWZ, 650-688-0441, specs@svpa.org

SCARES South County Amateur Radio Emergency Service
 meets 3rd Thursday 7:30 each month, San Carlos City Hall.
 Net is on 144.45 & 444.50 (PL-100) 7:30 Monday evenings.
 contact:

SCCARA Santa Clara County Amateur Radio Association
 Operates W6UU repeater 146.385+ Nets: 2m, W6UU, 7:30 Mon; 10m,
 28.385, 8:00 Thur. meets 2nd Mon each month.
 contact: Jack Ruckman AC6FU

SVECS Silicon Valley Emergency Communications
 Operates WB6ADZ repeater (146.115 MHz+)
 contact: Lou Shier WA6QYS 408 241 7999

WVARA West Valley Amateur Radio Association
 operates W6PIY repeater 147.39+, 223.96, 441.875, 1286.2
 meets 3rd Wed every month.
 contact: Glen Lokke Jr. KE6NBO at 408 971 8626, or glokke@nabell.net

Disaster Services,

PALO ALTO CHAPTER, American Red Cross
 Meets 3rd Wed. each month 7:30PM,
 HF, packet, BBS, ATV, OSCAR Gateway, NASA satellite,
 contact: Alan Ball 650-688-0423.

SAN JOSE CHAPTER, American Red Cross
 contact: Scott Hensley KB6UOO, 408 249 7093, sh@richochet.net

VE Exams, 3rd Saturday each month, 11AM, 145.23- PL=100Hz
 American Legion Hall, 651 El Camino Real, R.C.
 contact: Al Montoya at W6SIXM@worldnet.att.net

Contest Calendar, ~ September 1999 ~ Vic Black, AB6SO (for rules and exchanges, see www.contesting.com)

- 4,5 All Asian DX Contest, SSB 0000Z, Sep 4-2400Z, Sep 5
- 4,5 LZ DX Contest, CW 1200Z, Sep 4-1200Z, Sep 5
- 4,5 IARU Region 1 Field Day, SSB 1500Z, Sep 4-1500Z, Sep 5
- 5 North American Sprint, CW 0000Z-0400Z, Sep 5
- 5 Panama Anniversary Contest 0001Z-2359Z, Sep 5
- 11 WAE DX Contest, SSB 0000Z, Sep 11-2400Z, Sep
- 11,13 ARRL September VHF QSO Party 1800Z, Sep 11-0300Z, Sep 13
- 12 North American Sprint, Phone 000Z-0400Z, Sep 12
- 18,19 Air Force Anniversary QSO Party 0001Z, Sep 18-2359Z, Sep 19
- 18,19 ARRL 10 GHz Cumul. Contest 0800 local-2000 local, Sep 18 and
0800 local-2000 local, Sep 19
- 18,19 Washington State Salmon Run 1200Z, Sep 18-0700Z, Sep 19 and
1200Z-2400Z, Sep 19
- 18,19 Scandinavian Activity Contest, CW 1500Z, Sep 18-1800Z, Sep 19
- 19,20 Tennessee QSO Party 1800Z, Sep 19-0100Z, Sep 20
- 25,26 CQ Worldwide DX Contest, RTTY 0000Z, Sep 25-2400Z, Sep 26
- 25,26 Scandinavian Activity Contest, SSB 1500Z, Sep 25-
1800Z, Sep 26

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Submit material for PAARAgaphs by the 15th

PAARA Website <http://www.qsl.net/paara/>

Sequoia Yacht Club

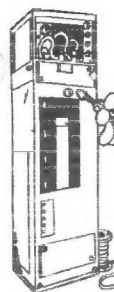
Ham Radio Class

With the demand for more use of the frequency spectrum by commercial endeavors, large blocks of non-commercial frequencies are being threatened by reallocation to commercial use. Amateur radio operators are declining in numbers. Not only are we threatened by losing portions of the band; we can lose entire bands.

There have been quite a few changes over the past years to make it easier to obtain an amateur license. This hasn't helped to increase the numbers. Too many distractions in our daily life have made self-study difficult and frustrating. Some of the drawbacks are lack of social interaction, lack of structure, and lack of peer encouragement.

This is the third year the class is being held at Sequoia Yacht Club. It provides the social interaction, structure, and peer group to learn some of the basics without having to become an engineer. It provides an entry-level to the local amateur community. The class was originally started out as class for mariners, particularly those interested in off-shore cruising. They had diverse backgrounds and were more interested in traveling than amateur radio. Amateur radio was just for emergency communications. I learned some lessons myself about our de-

(Continued on page 86) SYC Class



WEB WANDERINGS

de Vic Black, AB6SO

Honorary PAARA member **Bob Fabry N6EK**, who spoke to PAARA about the IARU HF beacon network, reports that the FCC has issued the license for the **W6WX** beacon to operate on 18 and 24 MHz and **W6WX** is now transmitting on five bands. Now only the **KH6WO** beacon is unable to transmit on the WARC bands. With the **W6WX** beacon license approved for WARC bands, it's expected that the Hawaiian beacon license will be approved soon. **Bob** designed and fabricated the beacon system for the Northern California DX Foundation.

In celebration of the millennium, and coincidental with the Solar Cycle 23 peak, the Radio Society of Great Britain has authorized a new one year Islands On The Air award, the IOTA 2000. The award will be administered by the UK DX Foundation, the Chiltern DX Club (CDXC). Sponsorship by the CDXC is significant since they are one of the 10 largest contributors to DXpeditions world-wide. For purposes of the award, the earth has been divided into 12 zones of 30 degrees longitude. Each zone has been assigned an activity month. Contacts with IOTA islands may be made with islands in any zone at any time during the millennium year, but contacts made within an activity zone and month count as premium contacts with a higher points value. Awards are available for various points totals. For details, see the web page at <http://www.cdxc.org.uk>. Even if you decide not to compete for awards, the existence of the award should increase activity world-wide from islands next year. Many of the islands also qualify as DXCC entities, but without the competitive hype normally associated with major DXpeditions.

All of our HF DX operations depend heavily on the magnetic behavior of the sun. Remarkably, the sun's magnetic field changes polarity on a regular basis with the cycle averaging every 22 years. The north pole becomes the south pole, and vice versa. Every 11 years, on average, the number of sunspots increases, then decreases. These spots are caused by cool areas in the sun's outer layers brought about by magnetic anomalies. They look dark on earth because the temperature is lower than in the surrounding areas on the sun's white hot disk.

The changing magnetic fields generate electric fields which affect life on earth. Occasionally solar flares extend from the sun's surface as plasma boils up from below the surface on the sun's corona, or outer atmosphere, with enough momentum to escape the sun's gravity. Particles from the flares travel to earth where they collide with our magnetic field and generate radio noise-creating electrical storms ("geomagnetic storms"). Also radiation from the sun ionizes gases in the earth's ionosphere causing the various radio refracting layers we depend on for DX propagation.

What would happen if there were no sunspots? Radio was invented about 100 years ago during "the good old days", formerly known as "these trying times". Marconi barely squeaked through with his first Trans Atlantic radio contact which was

made during a period of time with only 3 sunspots. Luckily, radio wasn't invented during Europe's Little Ice Age of 1645-1715. This 70 year period, known as the Maunder Minimum, was a time of great solar variability. Sunspots were exceedingly rare or non-existent. HF propagation wouldn't have worked and radio probably would have been abandoned.

Both the diameter and the period of rotation of the sun changed during the Maunder Minimum. As the sun grew larger in diameter, its rotation slowed down. Some astrophysicists feel the larger sun might have provided less heat on earth and contributed to major climate changes, although there is no proven cause and effect relationship.

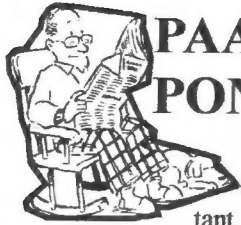
The reason the sun expands and contracts over a period of hundreds of years is still a major astrophysical puzzle. For a discussion on the sun's physics see <http://seds.lpl.arizona.edu/nineplanets/nineplanets/sol.html>. Maybe what we call global warming and the greenhouse effect are really the result of an expanding and contracting sun. If this is the case, are we headed for another Maunder Minimum?

The recent total solar eclipse was probably the most studied of all eclipses. One measurement that can be made during a total eclipse is the diameter of the sun. Measurements made since 1715 show the sun has shrunk by about 400 kilometers in diameter during the past 200 years. This would portend warmer weather in general and more intense sunspot cycles.

For an excellent discussion about the sun's effects on earth's weather with regards to sunspot cycles, see http://www.vision.net.au/~daly/sol_ar.htm the "Days of Sunshine" web site by John L. Daly. Daly points out that even a minor solar radiation build up during the approach of a solar maximum can cause the outer atmosphere to heat up. This in turn will expand the atmosphere somewhat and cause low earth orbit satellites to slow due to friction, eventually burning up during re entry to the atmosphere. Daly's site has graphs comparing a "hot" and "cold" sun with the peaks of sunspot cycles. He contends that recent global warming is really caused by faulty measurements since most measuring stations are set up in cities which are naturally warmer than the surrounding countryside. At any rate, the effects from the sun are more important than anything we can do here on earth.

If we are entering a warmer period with more intense sunspot activity, we can expect more violent weather, more tropical storms and better DX conditions just at a time when we're needed for emergency communications.

As I write this column, the FCC has stopped all license transactions in order to implement the new Universal Licensing System, ULS. This system will require all license transactions to be made electronically. It's very possible that the FCC will follow up immediately with an announcement concerning license restructuring. If there are to be major changes, the staff at FCC headquarters wouldn't be able to handle all the transactions without having the electronic system in place. Whatever the outcome, we'll eventually get accustomed to it and newcomers will remember the status quo as the norm. ☺☺☺



PAARA PONDERINGS

de VIC BLACK, AB6SO

Occasionally I ask a ham with an important story to write a guest column for PAARAgaphs. After we worked him during PAARA's Field Day effort I asked **Jason Goldsberry N5NU** to share his experiences with PAARAgaphs' readers. Jason lives in Douglass, Texas with Mom, **Brenda KA5DDV** and Dad, **Jimmy KC5FR**. I think you'll find Jason's story to be particularly inspiring. At 9 years of age he became one of the youngest Extra Class hams in history. Now, a few years later, he's making a name for himself in the CW world. Rumors have persisted about a young Texan who could copy code on the keyboard at over 80 wpm. This year at Ham-Com '99 in Dallas, he won the code copying contest at 45 wpm, one minute perfect copy, plain text, handwritten.

Jason describes himself as "your basically normal teenager in today's world. However, one thing that makes me different is that I am also an Extra Class radio operator who likes CW." He says that, "CW isn't just something that everyone talks about or watches (like movies), or something that you can beat (like video games). Rather, it is something that you can actually DO that will make you overall a better person. Wouldn't you rather brag that 'I'm a CW operator', than 'I play video games', or 'I watch movies'? Hope to see you in the November CW contest." You can learn a lot more by visiting Jason's informative and entertaining web site at <http://www.inu.net/n5nu>. Here's Jason's story:

A long time ago, I used to enjoy looking at my dad's box of QSL (confirmation) cards. Many were from remote islands and exotic places. I couldn't believe that a small signal coming from a black box could go around the world where others could actually make sense of it. One day in June of 1992, I was moping around the house with nothing to do but watch TV (as usual). The heat in Texas makes it too hot to go outside. My dad explained to me what Amateur Radio was all about, and offered to help me get a license. He made it sound very exciting (like teachers often make a course sound at the beginning of the year), so I dove right in. We studied each day for about a month. There were a few times that I wanted to quit, but Dad wouldn't let me. He said that after I got my license and made one contact that I could quit if I wanted to.

I passed the Novice test in July and my first callsign (**KB5UTO**) arrived in the mail August 21, 1992. What does **KB5UTO** stand for? Nothing, really. It's just my identifier in Amateur Radio. Dad stayed in the room with me while I made my first contact. He then left the room as I was calling CQ looking for another contact. After a month of about 30 or so contacts, I wondered where all of the DX was. Finally, one afternoon, I worked **VE7EGU** (B.C., Canada) on 15 meters CW. I received a QSL and a nice letter from him. I knew I was hooked.

Even though I was spending most of my time studying for my Technician Plus (2nd level) and General (3rd level), I still wondered what other DX was out there. After a few more contacts,

I was wondering when I would finally get a Real DX contact (outside of North America). Finally, one night, I heard a weak "QSL via Buro" (or, "Send your card to the Bureau so they will forward it to me") being sent out over the air. I was excited and disappointed at the same time. I was excited because I knew it was a DX station, but wasn't "Buro" a Japanese word? I couldn't speak a word of Japanese! I told my dad what I had heard about the Buro. He was mad at first because I didn't know what it meant. After listening a bit longer, I worked my first Real DX station: **JJ1RZG** (Japan). Listening carefully, I also heard there were many more DX stations there such as **PJ2GG**, **DH6OAD**, **XE3WMA**, **CO2HA** and **JJ7KBD** (Netherlands Antilles, Germany, Mexico, Cuba, Japan). These were a few of the first DX stations in the log. (Oh yeah, we laugh about the bureau incident today :-))

On February 14, 1993, I passed the Extra Class written test 4 weeks before my tenth birthday. I had passed the 20 WPM code test three months earlier. (Gee, I didn't know that 20 WPM was a just drop in the bucket compared to all of the 45 WPM thrill-seeking DXers and Contesters out there.) :-)) As it was, my first contest was only a few days away—The ARRL DX (A Long-Distance Contact contest sponsored by ARRL). I worked as many JA's as I could along with a 5W (Western Samoa) and V7 (Marshall Islands) and a few Europeans. I soon received my new Extra Class call, **AB5LX**. In February, 1997, I received my first choice vanity callsign, **N5NU**. So this is the true story about how I got started in amateur radio. Not a "Paul Bunyan" tale, or an April Fool's Joke, but the real thing.

Many people have asked me, "How did you learn the code?" Learning the code was actually fun for me. I started out listening to the characters being sent at about 13 WPM with several seconds between characters. At this speed I did not hear the individual dits and dahs. My dad used a code practice oscillator and straight key to produce the sounds. The first characters that I learned were the E, I, S, H, and 5. The next group was T, M, and O. These characters are the easiest to learn and Dad gave them to me first so that I would gain confidence. I found the 5 WPM plateau to be the hardest to reach, but was able to reach this plateau in about a month. This was only achieved by doing several 15 minute practice sessions per day.

After 5 WPM, the rest was easy. All I did was get on the air and begin making contacts. The more contacts I made, the more confidence I gained. I really got enthused when I started getting QSL cards! I had never received mail of any kind, other than an occasional birthday card and those little postcards the dentists send out reminding you to brush your teeth. It was very exciting for me. The more contacts I made, the more QSL cards I got. Also, I met several experienced operators who were more than willing to "coach" me and give me tips. My interest was so great that I practically lived on the radio.

I never took the 13 WPM code test. Three months after my Novice ticket arrived, I went for the Technician written exam and asked to take the 20 WPM code test. After showing the Volunteer Examiner my license and some discussion, I was given the 20 WPM code test. He thought I was really crazy. I had expected the test to be multiple choice, but it wasn't. It was fill in the blanks and I was told that if any answer was misspelled, it would be counted wrong. I barely passed! It sure sur-

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prised everybody—my parents, the examiner, myself, and everybody else there. I soon learned that if I really wanted to play with the really big-guns, I had a way to go. Many Extra Class operators rag chew at far greater speeds than I was used to. I also learned that many of the testers operate at 30-40 WPM. I guess I was too young to be intimidated, so I jumped in and joined the fun.

I found the computer program **RUFZ** to be most helpful in honing my CW contesting skills. It's also lots of fun. **RUFZ** (Rufzeichen, or German for Callsign) is an interactive Internet contest that requires you to type in callsigns during simulated pileups. By age 14 my highest score was 45,025 (at 80 wpm, good for #20 in the world!). I am now 16 years old and a Junior in High School. I managed to increase my RUFZ speed to 53,632 which ranks me 7th in the world for those in the 20 yr and under age group. This means I'm first in the contest among North American participants for my age group. I have found CW to be a great equalizer. There is no tip off to the other stations as to your age. When you are 9 years old, there are many operators who don't really want to talk to you. This problem is easily eliminated by CW. I only wish that everyone could enjoy working CW as much as I do.

Contesting is probably my favorite activity. I only contest in the CW mode. My favorite contests are the ARRL DX contest and the CQ WW. The NAQP, ARRL 10 Meters, Sweepstakes, and IARU rank close behind. I also like the WPX. Since paper logging now seems to be a thing of the past, you have to learn all the tricks of making a computer do the right things. I use TR logging 6.15 from **N6TR**. Working with both the computer and the radio while trying to work different stations, you can get pretty stressed out. I measure the stress by the CPC factor, or simply the number of Contacts Per Coke (+Sprite, Fresca, 7-Up). The higher this number, the less stress you have. The lower this number, the more stress you have. My last contest resulted in a CPC factor of 58.

CPC Factor: Advice.

- 0-5: Give up.
- 6-10: Are your antennas on the ground or in the air?
- 11-20: You're tired. Get another Coke to wake yourself up.
- 21-30: Having a hard time finding a good run frequency?
- 31-40: You can do better. Try another band.
- 41-50: You are probably beginning to have some fun.
- 51-70: You must be worrying about someone taking your run.
- 71-90: Great frequency! Keep on running.
- 101-110: You'd better refigure that factor again.
- 111-120: Be sure to thank your hosts!
- 121-??? : Whose station are you at?

Some of you are probably wondering what I do other than contesting. Here's the answer. I also like to DX. As of right now, I have around 255 countries confirmed, plus or minus several. I don't know what the last ones are. I will say, though, that I did use the YL factor to work several of the countries. Of course, you probably couldn't use the YL factor! When I was first licensed, I couldn't wait until I could actually "talk" on the radio. I didn't know what lay in store for me. I soon discovered that, because of my young age, everybody thought that I was a YL (Young Lady).

It doesn't do much for a young man's ego being called YL. In fact it was very embarrassing for me to explain that I wasn't a YL. However I was able to turn the situation to my advantage. While working a pileup for a rare DX station, the DX station exclaimed, "The YL only, please!" When no one answered, a stateside station exclaimed "Come on 'LX, he's calling you!" By this time the DX station as well as the others waiting were

growing impatient with me. What was I to do? I did the only thing that I could. I worked him. I've probably confirmed ten or more countries by the "YL method". It's better than an amplifier. Too bad it doesn't work on CW!

My philosophy on working DX is to work them where I find them. I've worked some on nets, and used web clusters to locate others. One such web cluster that I use is the OH2BUA WEBCLUSTER DX. I usually just tune around the band slowly and listen for the DX. This method works best for me when I stop and listen to each signal. I

especially listen for the weak signals.

Pileups are fun for me, to some extent, because they bring out the competitive nature in people. Pileups are more enjoyable if the DX station knows how to correctly work a pileup. It also helps if he establishes a pattern and sticks to it, and has good ears. The patterns aren't always obvious and you just have to listen for them. When I understand the pattern he is using, I get on the correct frequency and call.

Another part of DXing that I enjoy is logging. I use Logic IV for all my non-contesting logging. I use the **W1GEE** interface that allows me to send CW from the keyboard and "reads" the mode and frequency from my transceiver. It also has the RAC callbook and a list of QSL managers and routes only a key-stroke away. It keeps up with my QSLing for me also! Compared to my first paper log and the shareware callbook that I had, I think it is a pretty big step.

Another one of my favorite activities is CW code copying contests. I've participated in contests at the Shreveport Hamfest and Dallas Ham-Com '99. The thing that I like most about these contests is that they give someone like me a chance to

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AW, HE'S DUMB--- HE CAN'T GET PAST 3 WPM, AND I KNOW HE CAN'T PASS THE THEORY!

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achieve something big. Many people can't afford to have big award winning stations, and are not likely to win many plaques and certificates. Wonder how many yards I'd have to mow to afford an Alpha amplifier? Oh! I did win a nice plaque when I was 13 and a 24 hr clock the year before. They are both displayed in my shack. When I was 14 years old I won my first First Place Plaque. Thanks, Shreveport! ☺☺☺

73 de Jason, N5NU

Postscript 8/13/99

Hello Vic,

Nice hearing from you. Sorry it's taken so long for me to get back to you. Your e-mail was received while I was away at church camp and I'm just now getting caught up on answering.

I would be delighted for you to use any information that you find on my webpage. It hasn't been updated in a while, but most information hasn't changed. I am now 16 yrs old and a junior in High School. I did manage to increase my RUFZ speed to 53632 which puts me in 7th place on the world wide list for those in the 20 yr and less age group. This means I'm first among North Americans in my age group that participate in the contest. School started this week so I'll probably have little time for ham radio. Also, all my antennas are on the ground. Hope to be going in time for the November CW contest. ☺☺☺

73, Jason Goldsberry N5NU

n5nu@inu.net

<http://www.inu.net/n5nu/>

Thanks to Jason for an article that should inspire every ham to put forth a little more effort to advance their operating abilities, and to Vic for making the contact with Jason. -ed.

NEW PAARA MEMBERS

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—Thanks to Vic, AB6SO

Honorary Member 1999

Bob Fabry N6EK

Larry Schaar KD6FFN

ARRL Official Observer

Howard Burk KE6PTT

2364 Greenwood Heights Drive
 Kneeland, CA 95549-9036
ke6ptt@arrl.net

Sandra Dominguez

Silent Key

Harold Godfrey "Hal", N6AN

August 13, 1999

Dear friends of Harold Godfrey, N6AN,

I am sorry to have to forward this letter to you. My name is Allison Glynn and I am the granddaughter of "Hal." My grandpa died this last Wednesday, August 11, 1999. He was having chest pains at home at around 9:30 am. He called his son-in-law, Don Wright, who came and took him to the hospital. He died of a heart attack at 11:00 am at the Kaiser Hospital in Redwood City.

I am not sure how many of you were called by Don Wright so I am sending this out to all of his friends in his on-line address book. I know that his HAM and computer friends were very important to him. Knowing my grandpa, he would probably even want you to be told via e-mail but he would also add some graphics!

Services will be held in San Carlos at White Oaks Chapel, 1696 El Camino Real. Visitation will be on Tuesday night, August 17, 1999, from 5:00 pm to 9:00 pm. On Wednesday August 18, 1999, a service will be held at 11:00 am at the same location. His grandson, the Reverend Keith Wright, will lead the service. He will be buried next to my grandma at Olivet Memorial Park in Colma.

Please, if you have any questions or just want to share a fond memory of my grandfather, e-mail me at:

ALLIcat4@aol.com.

Sincerely yours,
 Allison Glynn

Sequoia Yacht Club
Amateur Radio
Weekend Technician (No Code) Class
Saturday & Sunday
Oct. 23 & 24, 1999

Entry level class covering current Novice and Technician Class licenses both in one weekend at Sequoia Yacht Club in Redwood City, CA. Classes will be from 9:00 AM to 4:30 PM with the FCC test given on Sunday afternoon. Proposed FCC rule changes will lower the general class license code requirement. This class will prepare you to take advantage of the proposed changes.

- ↳ FCC testing in class on Sunday by accredited examiners.
- ↳ License granted within 48 hours or less of completion the exam.
- ↳ Lunch and snacks provided on both Saturday & Sunday.
- ↳ All books and materials supplied prior to the start of the class.
- ↳ The two-day class fee is \$65.00 and includes lunch on both days, textbooks, workbooks, class materials , & FCC test and license fees.

Federal Communications Commission has proposed to streamline the Amateur Radio Service by lowering the code requirement for General licenses. This weekend class prepares you to concentrate on the relaxed code requirements by covering the Novice and Technician elements of the exams, introducing you to equipment, and providing access to study materials for the General license.

For more information contact:

Al Montoya at Sequoia Yacht Club [phone # (650 365-3004) or E-mail: wb6imx@worldnet.att.net]

Pre-registration is required by September 12, 1999. Please use the following form to register for the class.

Please fill out this form (print) and enclose a check or money order (no cash) made payable to Sequoia Yacht Club for \$65.00 with this registration. Mark "HAM CLASS" on the envelope. Receipt will be confirmed and a schedule of the class will be sent to you. Later, In mid-September 99, all the course material will be sent to you. Pre-registration is required by September 12, 1999.

Mail to: Sequoia Yacht Club; P O Box 5548; Redwood City, CA 94063-0548

Name: _____ **Day Phone #:** (____) _____

Address: _____

City: _____ **State:** _____ **Zip Code:** _____

E-Mail Address: _____

LONG SQUELCH TAIL?

Rich Stiebel, W6APZ

Heard on the repeater: "This one has a long squelch tail." Some hams used to old repeaters believe that they must wait until the repeater's squelch tail drops before they can transmit. This used to be true many years ago and may still be true with some repeaters on the air today, but NOT on the Palo Alto **145.230 repeater**. In old repeaters, the drop of the squelch tail was when the "blab" timer was reset. This blab timer is sometimes called the "alligator" because alligators bite and people who get cut off by the timer feel as though they have been bitten. Technically, this timer is called the "time-out timer". The intent of this timer is to allow emergency traffic to break in or for someone to enter an existing conversation.

The 145.230 repeater and most modern repeaters use a courtesy tone to alert users that the time-out timer has been reset and the next station can begin transmission. The time between the end of transmission and the courtesy tone allows stations to break in. So why the long squelch tail? There is a historical reason: older repeaters used relays to change from transmit to receive, and relays are rated for a finite number of switching operations. Listen to the 9 AM weekly net on 523 for a few days (for example) and you'll quickly realize the hundreds of times that stations stop transmitting and another station begins transmitting. Our original repeater used a transmit-power-on relay which had to be replaced periodically when the contacts wore out. The long squelch tail kept the relay pulled in, reducing the number of relay switches, while the courtesy tone alerted users that the timer had been reset.

So much for history. Why the long squelch tail today, when relays are no longer used? It's all a matter of timing. The controller keys certain automated messages, such as meeting announcements, to the drop of the squelch tail. The idea is that so long as a conversation is going on via the repeater, the controller will not interrupt with an announcement. The controller is programmed to believe that when the squelch tail drops, the conversation is over. So the squelch tail on our repeater functions as a spacer. If the squelch tail were shorter, there would be more doubles between repeater messages and users' conversations. The one exception to waiting for a squelch tail drop is the Forced ID message (repeater identification) which by law must come on at least once every ten minutes, whether a conversation is going on or not. This ID is usually in CW and the controller is programmed so that the voice overrides the CW, yet the IDer can be heard, so the rules are not violated.

The point to remember is that one need not wait for the squelch tail to drop before beginning to transmit on 145.230. As soon as the courtesy tone is heard, that is the cue to begin transmitting. ☺☺☺

de Rich, W6APZ email: w6apz@arri.net

(Continued from page 79) **ARES**

capable of using radio frequencies instead of phone lines to transmit computer data (through radio modems, a.k.a. "packet radio").

- **Inter-Agency Communications:** Most agencies have dedicated frequencies and radios that operate only on those frequencies. ARES members can be assigned to "shadow" key people at different agencies' operations centers and in the field to allow inter-agency communication when the agencies are not able to communicate through normal channels. Furthermore, because of the special frequency and power-output privileges Amateur Radio Operators have, direct links can be established to locations out of range of normal public safety radios (such as California State OES in Sacramento or FEMA in Washington, D.C.).

- **Health and Welfare Information:** ARES members can collect and transmit health and welfare messages to the Red Cross and out-of-area family members on behalf of emergency workers and people in the community, freeing personnel to concentrate on priority matters.

- **Simulated Emergency Tests:** To maintain operator skill and to develop working relationships with the agencies they serve, ARES Emergency Responders participate in various disaster drills, exercises, and related activities.

- **Community Events:** In non-emergencies, ARES volunteers may assist local authorities by providing supplemental communications for various local events such as parades. ARES Emergency Responders also volunteer for special duty to supplement local agency operations.

How Can I Get Involved?

The first step is to contact the South County Amateur Radio Emergency Service (SCARES) and arrange to be trained to get your Amateur Radio license: Tel. 650-780-7145; E-mail: scares@hotmail.com; Web: <http://www.belmont.gov/orgs/scares/>. SCARES holds meetings every 3rd Thursday of the month at 7:30 p.m. in the San Carlos City Council Chambers. (If you already have a license: There is also a radio net: Mondays at 7:30 p.m. on 144.45 Simplex or 444.500 (-) PL 100.0. The San Mateo County Sheriff's Office of Emergency Services (OES) holds a net every Tuesday at 8:00 p.m. on 146.865 (-) PL 114.8 and 146.925 (-) PL 114.8.) For Santa Clara County, see <http://www.svpal.org/~specs/>.

We need your help!

Get involved in the Amateur Radio Emergency Service today!

SEMINAR & EXAM: "HAM" RADIO

WHAT: Amateur Radio ("Ham") cram course & Federal license exam

WHEN: October 2 & 3 (SAT, SUN) 8:30AM - 5:00PM

WHERE: FIRE STATION #23 CLASSROOM

31 W. 27TH AVE. - SAN MATEO, CA

FEE: \$15.00 [bring your own highlighter and calculator, as well as pencils/pens]

CONTACT: ROSS PETERSON - 650-349-5349

(Call now to reserve your space!!!)

FAX - 650-570-5558

E-MAIL: WB6ZBU@pacbell.net

NOTE: PARKING - ON STREET NEAR FIRE STATION

This is a "cram course" - designed to help you memorize the questions for and pass the Federal license exam ("no code technician") which is administered as part of the class. Free further training is available through the Amateur Radio Emergency Service.

*****NOTE:** If you cannot attend this class, the Stanford University Amateur Radio Club (W6YX) will be conducting a (more in-depth) radio training course later in October. Contact Ken Ducker [kducker@cspeed.com] for more details.

(Continued from page 80) **SYC Class**

cline in interest in our hobby. By the second year, additional material and handouts were developed and the class included an even more diverse group of backgrounds and interests in amateur communications.

The current class has its own introduction to amateur radio theory and practice, question pool booklet, and worksheets. The material is geared to cover only those items necessary to understand the theory required pass the novice and technician class exams. The class has social periods where we can cover additional incentives for other license classes; but the primary purpose of the class is to make it an easy environment for learning and passing the material for entry into the world of amateur radio. The class requires participation by the students and provides a timed structure for passing the tests.

My thanks to all the hams and non-hams that are involved and have helped make this training possible.

73's de Al WB6IMX

(see page 85 for application form)



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PAARA • Palo Alto Amateur Radio Association • P.O. Box 911, Menlo Park, California 94026-0911

- Club meetings are on the first Friday of each month, 7:30pm at the Menlo Park Recreation Center, 700 Alma Street, Menlo Park, CA.
- Radio NET every Monday evening, at 8:30pm, on the 145.230-600 MHz repeater, PL tone off.

Membership in PAARA is \$12.00 per calendar year which includes a subscription to PAARAgaphs, \$6 for additional family members (no newsletter).
Make payment to the Palo Alto Amateur Radio Association.

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Palo Alto Amateur Radio Association, Inc.
PAAR*agraphs* Newsletter
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Menlo Park, California 94026



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